New Initiatives Resources and Best Practices

This page provides resources that may be useful to those either considering submitting a proposal to the New Initiatives program or who are currently working on a program that is already funded. All of the content on this page is informational only and is not required as part of the New Initiatives submission process.

The page contains resources and tools that should help you create a more successful initiative, in particular they can help you:

- assess the feasibility of a great idea or new vision,
- create a business strategy,
- determine and quantify measurable outcomes and success metrics, and
- create a plan for sustainability.

Assessing the feasibility of an idea

These resources are intended to be helpful for assessing the feasibility of an idea before completing a proposal for funding. A quick search on the internet will provide more information and resources for these tools.

SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis: This is a long-standing method of identifying the strengths and weaknesses of an idea, the opportunities it could present, or the threats that could weaken or derail the idea. The key with any SWOT analysis is exploring ways to lessen or eliminate weak points and turning potential threats into opportunities.

SMART (Specific, Measurable, Attainable, Relevant, and Timely): Like the SWOT analysis, SMART goals have stood the test of time. Making goals specific, measurable, and realistically attainable is critical for any potentially successful proposal. Likewise, focusing on areas that are both relevant to IEEE's overall work and timely, considering either world events or technological advancement, are two ways to ensure an idea is developed to its full potential.

Heilmeier Catechism: The late George Heilmeier, 1997 IEEE Medal of Honor winner and inventor of the liquid crystal display, created a model (while the leader of DARPA) for analyzing ideas with their future successful implementation in mind. He asked his engineers and scientists a series of questions that became known as the "Heilmeier Catechism." Using the "Catechism," George Heilmeier's technology leaders would arrive in his office having already asked themselves key questions about their respective ideas. While not every question in the "Heilmeier Catechism" may apply to an idea for a NIC proposal, asking the applicable questions may help hone and refine an idea, as well as develop thinking about sustaining a successful project beyond its initial NIC funding.

Look outside IEEE for research to support an idea or for existing programs and initiatives that align with the idea: Explore evidence outside IEEE—statistics, reports, and other research that shows that there is a need for the idea and vision to be realized. Show how the proposed idea

is not only in line with IEEE's goals, but with the goals of other external bodies (for example, international or national organizations or governments, etc.).

Creating the business case

A solid business case should tell a story about a set of needs that are not being addressed by IEEE or the market but that would be addressed by the proposed product or service. It should also include a clearly defined strategy for execution. IEEE NIC has consultants available that can help promising proposal in creating a business plan.

Establishing measurable outcomes and measuring success

Every proposed initiative should have a clear set of measurable outputs or outcomes that are expected as a result of that initiative taking place. What the initiative intends to accomplish and how those metrics will be measured is a critical part of the proposal for funding from the New Initiatives program.

Measurable outputs are what is produced from a project that can typically be easily quantified, for example:

1. Number of clicks on a web page
2. Social media reach
3. Downloads of a course, publication, and so on
4. Number of times a product was purchased
5. Revenue generated from the initiative
6. Number of products created

It is best to have a plan to track outputs at different time intervals. Once a baseline is established, outcomes can be tracked at intervals thereafter (for example, every six months or a year). A project team should present goals for what success looks like around outcomes in the proposal as well as a plan for tracking such outputs.

Measurable outcomes are the impact or affect an initiative is expected to have among the predetermined, specified audience for the initiative. Outcomes typically do not happen right away and can sometimes be more difficult to measure quantitatively. Some examples of outcomes are:

1. Perception change: perception of IEEE as a community of engineers working in private industry, an individual's perception of the STEM field, how one views women in technology, etc.)
2. Behavior change (engagement with IEEE continuing educational courses, conference attendance, etc.)

Outcomes are often harder to quantify than outputs and are often measured qualitatively through interviews and focus groups. Surveys can also help to start to quantify outcomes.

It is best to measure outcomes after some time has gone by. A good rule of thumb is to measure outcomes six months to a year, or even two to three years, after the initiative has been used by the intended audience.

Planning for sustainability

Planning for sustainability beyond funding from the New Initiatives program, even at the ideation stage, is a necessary task for seed grant proposals and New Initiative proposals.

New Initiatives program funding is intended to 'stand up' good ideas and give them the support they need as they start out. Funding from the New Initiatives Committee is not a permanent source of support.

Sustainability for seed grant proposal

Projects applying for a Seed Grant are often in the exploration or pilot stage so planning for sustainability might be something that results from the project. Therefore, plans for sustainability do not need to be as comprehensive for Seed Grants as for New Initiatives. However, the New Initiatives Committee would like the project team to identify potential paths for sustainability, even if they are not fully cemented.

Sustainability for New Initiatives proposals

Projects applying for New Initiatives funding are expected to have a clear plan for sustainability. New Initiatives funding is good for up to three years. The project team needs to have a plan to continue and hopefully grow the project beyond the committee funding period.

Resources for creating a business plan for sustainability

The key to sustaining an initiative is to start planning for the long-term success of the initiative early on. Start partnering with and bringing onboard the proper stakeholders early on so they have a stake in the project and can provide input. Work with stakeholders early to establish clear goals and plans for long-term success.

SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis, part two: The portion of a SWOT that identifies opportunities for an idea can often serve as the beginnings of a roadmap towards sustainability for an initiative. When considering opportunities for a proposal, focus a portion of efforts to grow over time. If there are potential partners (for example, charitable, trade, or professional associations or foundations) that could assist in sustaining your proposed initiative beyond IEEE's early support for it, identify those partners during the ideation period and begin to form relationships with them early on so they are stakeholders in the initiative.

How will metrics of success be sustained over time: When crafting a Seed Grant or New Initiative proposal, the metrics are the key to determining sustainability. Focusing on those metrics, and estimating what their impact could be over time, is a critical step towards demonstrating the sustainability of a proposal.

Successful New Initiatives projects: There are several successful NIC proposals that can be reviewed to see how sustainability was approached. Cloud Computing, Smart Grid, and Rebooting Computing are all initiatives that began with the New Initiatives program and have since been able to grow into larger communities with varied offerings and content resources.